

**S2 Table. Deactivation time course after glycine removal for GluN1-P557R and GluN2A-P552R (related to Figure-4)**

	Di-heteromeric Receptors			Tri-heteromeric Receptors		
	WT N1/N2A	N1/N2A-P552R	N1-P557R/N2A	N2A/N2A	N2A-P552R/N2A	N2A-P552R/N2A-P552R
<b>Amplitude (peak, pA/pF)</b>	67 ± 12	18 ± 5.1 <sup>#</sup>	4.5 ± 2.0 <sup>#</sup>	57 ± 15	29 ± 4.3	11 ± 2.7 <sup>#\$</sup>
<b>Amplitude (SS, pA/pF)</b>	44 ± 8.5	---	3.9 ± 1.7*	49 ± 11	24 ± 3.4	---
<b>I<sub>SS</sub>/I<sub>PEAK</sub>%</b>	70 ± 4.5 %	---	88 ± 1.2 %*	88 ± 2.8 %	85 ± 4.9 %	---
<b>Rise time (ms)</b>	13 ± 0.75	874 ± 75 <sup>#</sup>	8.6 ± 1.4	15 ± 1.1	14 ± 1.3	1176 ± 22 <sup>#\$</sup>
<b>τ<sub>FAST</sub> (ms)</b>	91 ± 5.2	1093 ± 96 <sup>#</sup>	415 ± 148 <sup>#</sup>	127 ± 9.6	387 ± 62	1690 ± 90 <sup>#\$</sup>
<b>τ<sub>SLOW</sub> (ms)</b>	594 ± 87	3034 ± 1263 <sup>#</sup>	953 ± 99	1346 ± 242	1800 ± 254	2368 ± 304 <sup>#</sup>
<b>%τ<sub>FAST</sub></b>	92 ± 1.9 %	89 ± 6.5 %	57 ± 14.5 % <sup>#</sup>	95 ± 1.5 %	81 ± 3.0 %	91 ± 3.8 %
<b>τ<sub>W</sub>(ms)</b>	125 ± 7.6	1243 ± 84 <sup>#</sup>	801 ± 103 <sup>#</sup>	177 ± 9.5	621 ± 75 <sup>#</sup>	1915 ± 85 <sup>#\$</sup>
<b>n</b>	17	12	7	8	7	17

Data are from human NMDARs. All parameters describing the time course of the macroscopic current were from responses to 1.5 sec glutamate application.

# p < 0.05 compared to corresponding WT receptors; one way ANOVA, Tukey post hoc

\$ p < 0.05 compared to N2A-P552R/N2A; one way ANOVA, Tukey post hoc

\* p < 0.05 compared to corresponding WT receptors, unpaired t-test

See **S6 Table** for F statistics.